



# KERALA GAZETTE

## കേരള ഗസറ്റ്

PUBLISHED BY AUTHORITY

ആധികാരികമായി പ്രസിദ്ധപ്പെടുത്തുന്നത്

Vol. LV വാല്യം 55	} THIRUVANANTHAPURAM, TUESDAY തിരുവനന്തപുരം, ചൊവ്വ	17th August 2010 2010 ആഗസ്റ്റ് 17	} No. നമ്പർ	33
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### COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

#### NOTIFICATIONS

(2)

(1)  
No. Conf.II/2941/2/2008. 16th February  
2009.

*Read:—*Notification No.Conf.II/2941/1/07/18  
d a t e d  
5-6-2007.

In exercise of the powers conferred under  
Section 24 (ii) read with Section 42(1) of the Cochin  
University of Science and Technology Act,1986, the  
Academic Council at its meeting held on 28-8-2008  
resolved that—

“The number of questions in the  
question bank be fixed as 20 in the  
Scheme of Lab Examination and viva  
voce of I to IV semesters of MCA  
and that all these 20 questions be  
completed in the Laboratory Record.  
This change in the Scheme of  
Examination is made applicable to  
2008 admission as well as the existing  
batches”.

The Syndicate at its 537th meeting held on  
30-12-2008 approved the above decision taken by the  
Academic Council.

The notification read above stands modified to  
this extent.

No. Conf.II/2941/2/2008 (1). 6th July 2009.

*Read:—*Ph.D. Regulation 2004, Notification  
No.Conf.II NOT/8/05 dated 18-10-2005.

In exercise of the powers conferred by Section 24 (ii)  
read with Section 42(1) of the Cochin University of Science  
and Technology Act 1986 (Act 31 of 1986) the Academic  
Council at its meeting held on 28-8-2008 resolved that a  
relaxation of 5% marks in the Departmental Admission Test  
for Ph.D. programme be granted to SC/ST students.

The Syndicate at its meeting held on 1-4-2009 vide  
Item No. 541.26 resolved to approve the above resolution  
made by the Academic Council and further resolved to  
amend Clause ‘9’ of Ph.D. Regulations.

Accordingly Clause 9(ii) of Ph.D. Regulation is  
amended as follows:

Clause 9 (ii): Candidates who have scored  
atleast 50% marks in the written  
examination (provided that the minimum is  
45% marks for candidates belonging to SC/  
ST) will be eligible to be ranked for  
admission.

The above read notification stands modified to this  
extent.

(3)

No. Conf.II/2941/2/2008 (2).

6th July 2009.

*Read.*—Common Regulation for M.Tech Courses,  
Notification No. Conf.II/NOT/11/2003  
dated 25-7-2003.

In exercise of the powers conferred by Section 24 (ii) read with Section 42 (1) of the Cochin University of Science and Technology Act 1986, (Act 31 of 1986) the Academic Council at its meeting held on 28-8-2008 resolved that the Examination Committee/Department Council be treated as passing Board for M. Tech Examinations and necessary amendments in this regard be made in M. Tech Regulations.

The Syndicate at its meeting held on 1-4-2009 vide Item No. 541.25 considered the above resolutions made by the Academic Council and made it effective from 1-4-2009, the date of meeting of the Syndicate.

Accordingly the above sentence is added to Clause 1.7 'Declaration of results' of the Common Regulations for M. Tech Programmes which will now be read as follows:

“The Exam. Committee/Department Council be treated as Passing Board for M.Tech Examinations. The Final marks be reported to the University for Tabulation and declaration of Results. The University shall issue mark lists at the end of each semesters”.

The addendum to Clause 1.7 of M.Tech Common Regulations will only be applicable to the University Departments/Schools offering M.Tech Courses.

(4)

No. Conf.II/2941/1/2009.

10th September 2009.

In exercise of the powers conferred by Section 24 (ii) read with Section 42 (1) of the CUSAT Act 1986 (Act 31 of 1986) the Academic Council at its meeting held on 3-1-2009 resolved to approve the Regulations/Revised Schemes of Examinations of various courses as given below:

- (1) Regulation for M.A. Applied Economics with effect from 2009 admissions to be offered at the Department of Applied Economics (Appendix-I)
- (2) Revised Scheme of Examination for M.Tech. Course in Ocean Technology with effect from 2009 admissions offered at the Department of Physical Oceanography (Appendix-II).
- (3) Regulation and Scheme of Examination for M.Sc. Diving Technology (Regular and Lateral Entry) offered at Diving School under the Southern Naval Command (Appendix-III).

The Syndicate at its meeting held on 1-8-2009 vide item No. 546.06 resolved to approve, the above said Regulations and Schemes of Examinations and made them effective as mentioned below:

- (1) M.A. Applied Economics—w.e.f. 3-1-2009 (the date of meeting of the Academic Council).
- (2) M.Tech. Ocean Technology—w.e.f. 3-1-2009 (the date of meeting of the Academic Council).
- (3) M.Sc. Diving Technology—from 2005 admission onwards.

## M. A. APPLIED ECONOMICS

### REGULATIONS FOR THE MASTERS PROGRAMME IN ECONOMICS

- 1.1 Eligibility for admission to the M.A in Applied Economics Programme shall be a Bachelor's Degree in Economics with 55% in Part III (Economic and subsidiary) or 60% with B.Com, B.B.A, B.B.M with Economics as one of the subject or B.Sc Mathematics or Statistics with 65 % marks. SC/ST candidates are eligible for 5% relaxation in the minimum marks for eligibility.
- 1.2 Candidates who have appeared in the Final Year Degree Examination but awaiting results are permitted to seek provisional admission to the course. Such candidates are required to provide evidence of the minimum academic qualification prescribed on or before their enrolment to the first semester M.A in Applied Economics Examination of CUSAT to be held for the same batch of students. If they fail to do so they shall be removed from the rolls.
- 1.3 Admission to the M.A in Applied Economics shall be based on the scores obtained by the candidate in the CAT conducted by the University. The questions for the CAT are of multiple choices from Economics (50%), Mathematics & Statistics (30%) remaining general awareness.
- 1.4 There shall be 20 seats of which five shall be reserved for foreign candidates recommended by the Govt. of India. If such candidates are not available the seats can be allotted to NRI who qualify the entrance test and satisfy the other qualifications prescribed for the degree. If NRI candidates not available these seats can converted to general merit on the basis of the recommendation of the head of the Department.
- 1.5 Reservation rules applicable to nonprofessional courses in Kerala as laid down by the State Government from time to time are applicable in the case of admission to the degree.

- 1.6 Payment of fees: Fees for the programme must be paid as prescribed by the University.
- 1.7 Re-admission to the programme shall be permitted only if the candidate satisfies the conditions laid down by the university and with permission of the Registrar.
- 2.1 Course study: The course work for the M.A in Applied Economics degree shall be in accordance with the schemes of examination and syllabus prescribed. The course shall extend over a period of two academic years comprising of four semesters. Each semester shall extend over a period of 16-18 weeks.
- 2.2 The minimum attendance required by the candidate shall be 75 of the total number of working days.
- 3.1 Scheme of studies: A minimum of 18 (Eighteen) credits shall be offered in each semester. In the fourth semester there shall be a Project Report and comprehensive viva voce. The Project Report is equivalent to 4 (four) credits. Two optional papers will have three credits. The viva voce examination is based on a presentation made by Candidate in the department with an external expert Viva Voce is equivalent to two credits.

### 3.2 DETAILS OF PAPERS

#### Semester I

1. Micro Economics I
2. Macro Economics I
3. Mathematical Methods for Economic Analysis
4. Statistics for Economic Analysis
5. Indian Economy

#### Semester II

6. Micro Economics II
7. Macro Economics II
8. Econometrics
9. Financial Institutions and Markets
10. International Economics

#### Semester III

11. Development Economics
12. Operations Research
13. Public Economics
14. International Finance
15. Environmental Economics

**Semester IV**

16. Research methodology
17. Optional
18. Optional
19. Project Report
20. Comprehensive Viva Voce

**OPTIONAL PAPERS**

1. Advanced Econometrics
2. Agricultural Economics
3. Industrial Economics
4. Kerala Economy
5. Portfolio Management
6. Project Planning & Appraisal
7. Social Exclusion and Inclusive Policy Studies
8. Marketing Management
9. Human Resources Management.

Total Marks 2000 and Total 76 credits

**M.Tech. COURSE IN OCEAN TECHNOLOGY**

(Scheme & Syllabus applicable from Academic Year 2009)

**DEPARTMENT OF PHYSICAL OCEANOGRAPHY****Semester I**

OCE 3101 Introductory Oceanography	core	3
OCE 3102 Coastal Engineering	core	4
OCE 3103 Practical I	core	2

**Semester II**

OCE 3201 Advanced Applied Oceanography	core	4
OCE 3202 Environmental Ocean Technology	core	3
OCE 3203 Practical II	core	2

**LIST OF ELECTIVE COURSES**

OCE E301 Ocean Dynamics	4
OCE E302 Boundary Layer Dynamics	4
OCE E303 Marine Pollution	4
OCE E304 Ocean Resources	4
OCE E305 Ocean Instrumentation	4

OCE E306 Intergrated Coastal Zone Management	4
OCE E307 Ocean Acoustics	4
OCE E308 Satellite Oceanography	4
OCE E309 Ocean Material Technology	4
OCE E310 Observational Techniques & Instrumentation	4
OCE E311 Oceans and Climate Change	3
OCE E312 Numerical Modeling	2
OCE E313 Ocean Dredging Technology	2
OCE E314 Deep Sea Submersibles and Exploration	2

**Semester III**

OCE 3301 Project Dissertation and Mid Term Evaluation	core	18
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**Semester IV**

OCE 3401 Project Dissertation Evaluation and Viva Voce	core	18
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**REGULATIONS: CLEARANCE DIVING OFFICER (REGULAR)**

1. Programme No. 8101
  2. Programme Name MSc. (Diving Technology)
  3. Programme Code Clearance Diving Officer Course
  4. Approving Authority Naval Headquarters
  5. Eligibility Criteria for Admission
    - (a) Officer nominated by Naval Headquarters
    - (b) Graduate degree in Science/Technology from any recognised university
  6. Duration
    - (a) Semester I & II will consist of cadet phase and Slt technical phase (60 weeks)
    - (b) Semester III & IV will be Clearance Diving Officer course (44 Weeks)
- (Total Duration 2 years as required for MSc. degree)

7. Attendance Required	80 % Minimum
8. Nature	Full Time
9. Approved intake capacity	Max. 30
10. Examination Pattern	Exam. Paper setter would be other than Subject Instructor as nominated by Chief Instructor (CI)

(a) 13 Written Exams. : 1250 Marks

(b) 09 Practical : 650 Marks

(c) Project Work : 300 Marks

Total : 2200 Marks

### 11. Grading

(a) *Grades*:—The following are the grades for performance in individual subject:

Range of Marks	Grades	Weightage
90 % and above	S Outstanding	10
80-90 %	A Excellent	9
70-80 %	B Very Good	8
60-70 %	C Good	7
50-60 %	D Satisfactory	6
Below 50 %	F Failure	0

In calculating the grading, the upper values of the ranges are excluded.

(b) *Cumulative Grade Point Average*:—Over all performance at the end of the course is indicated by Cumulative Grade Point Average (CGPA) calculated as for the subjects :

$$CGPA = \frac{G1C1 + G2C2 + G3C3 + \dots + GnCn}{C1 + C2 + C3 + \dots + Cn}$$

Where G = Grade Weightage

C = Corresponding Subject Credit

(c) The classification on degree would be as follows:

S. No.	Classification	CGPA
1.	First Class with distinction	8 and above
2.	First Class	6.5 and above
3.	Second Class	6 and above
4.	Fail	Below 6

### 12. Details of course and credit points are as follows:

#### Semester III

Subject Code	Paper	Credit
23.01	Physics of Diving and Diving Physiology	4
23.02	Explosive Ordinance Disposal and Mine Clearance	4
23.03	Mixture Theory	2
23.04	Non Destructive Testing	8
23.05	RCC and Construction of Diving System	2
23.06	Demolition	8
23.07	Marine Salvage	8
23.08	Clearance Diving General	6
Total		42

#### Semester IV

Subject Code	Paper	Credit
2 4.01	Hull Maintenance	2
2 4.02	Deep and Saturation Diving	4
2 4.03	Diving Medicine	2
2 4.04	Submarine Familiarisation and Escape Training	6
2 4.05	Diving Equipments	6
2 4.06	Project Work	8
2 4.07	Physical Training	6
2 4.08	Diving Practical	8
2 4.09	On Job Training at Operational Diving Teams/Units	8
Total		50

### 13. Failure in Examination

(a) In case of failure of any subject, the officer trainee will be given a written warning by Course Officer and will be re-examined. In case a trainee fails in re-examination he will be recommended for withdrawal.

OR

(b) In case a officer trainee fails in two or more subjects he will be recommended for withdrawal.

SCHEME OF INSTRUCTION AND EXAMINATION M.Sc. IN DIVING TECHNOLOGY (REGULAR)  
PROGRAMME No. 8101

Subject Code	Subject	C/E	Total Hours	Credits	Scheme of Teaching			Scheme of Examination Marks		
					T (HR)	P(HR)	T/P	TH	P	Total
					(HR)	(HR)	(HR)	(Marks)	(Marks)	(Marks)
Semester III										
23.01	Physics of Diving and Diving Physiology	E	64	4	56	8	3	100	..	100
23.02	Explosive Ordinance Disposal and Mine Clearance	E	64	4	56	8	3	100	..	100
23.03	Mixture Theory	E	32	2	24	8	4	50	50	100
23.04	Non Destructive Testing	C	128	8	96	32	5	100	50	150
23.05	RCC and Construction of Diving System	E	32	2	22	10	4	50	50	100
23.06	Demolition	C	128	8	96	32	5	100	50	150
23.07	Marine Salvage	C	128	8	100	28	5	100	50	150
23.08	Clearance Diving General	C	96	6	66	30	5	100	50	150
Total			672	42	514	158		700	300	1000

*Note.*— T—Theory (Hours)  
P—Practical (Hours)  
T/P—Theory/Practical Examination (Hours)  
TH—Theory Marks  
C—Core Subject  
E—Elective Subject

Subject Code	Subject	C/E	Total Hours	Credits	Scheme of Teaching			Scheme of Examination Marks		
					T (HR)	P(HR)	T/P	TH	P	Total
					(HR)	(HR)	(HR)	(Marks)	(Marks)	(Marks)
Semester IV										
24.01	Hull Maintenance	E	32	2	22	10	3	100	..	100
24.02	Deep and Saturation Diving	C	64	4	56	8	3	100	..	100
24.03	Diving Medicine	E	32	2	28	4	3	100	..	100
24.04	Submarine Familiarisation and Escape Training	C	96	6	66	30	4	100	..	100
24.05	Diving Equipments	C	96	6	72	24	5	150	..	150
24.06	Project Work	C	64	8	48	16	3	100	..	300
24.07	Physical Training	C	96	6	6	90	2	..	100	100
24.08	Diving Practical	C	128	8	8	120	5	..	150	150
24.09	On Job Training at Operational Diving Teams/Units	C	128	8	28	100	3	..	100	100
Total			736	50	332	404		650	350	1200

*Note.*—

Total Credits—92

Out of 92 Credits 16 for Elective Subjects and 76 for Core Subjects.

**REGULATIONS: CLEARANCE DIVING OFFICER  
(LATERAL)**

1. Programme No. — 8102
2. Programme Name — M.Sc. (Diving Technology)
3. Programme Code — Clearance Diving Officer Course (Lateral Entry)
4. Approving Authority—Naval Headquarters
5. Eligibility Criteria for Admission :
  - (a) Officer nominated by Naval Headquarters
  - (b) Graduate Degree in Science/Technology from any recognised university
  - (c) The Officer should have successfully completed Semester I & II consisting of cadet phase and Slt technical phase (60 weeks) and Clearance Diving Officer Course of 44 weeks.
6. Duration—Undergo Semester IV consisting of 24 weeks of Specialised dive training at Diving School along with the regular batch.
7. Attendance Required—80% Minimum
8. Nature
  - (a) Selected candidates are to formally register at the beginning of IV Semester of M.Sc. (Diving Technology) and join with the regular batch.
  - (b) Selected candidates are to qualify the IV Semester examinations along with the regular batch.
9. Approved intake capacity—Max. 30
10. Examination Pattern— Exam Paper setter would be other than Subject Instructor as nominated by Chief Instructor (CI)
  - (a) 13 Written Exams: 1250 Marks
  - (b) 09 Practical : 650 „
  - (c) Dissertation : 300 „
  - Total : 2200 „

**11. Grading**

(a) *Grades*—The following are the grades for performance in individual subject :

Range of Marks	Grades	Weightage
90% and above	S Outstanding	10
80-90%	A Excellent	9
70-80%	B Very Good	8
60-70%	C Good	7
50-60%	D Satisfactory	6
Below 50%	F Failure	0

In calculating the grading, the upper values of the ranges are excluded.

(b) Cumulative Grade Point Average. Over all performance at the end of the course is indicated by Cumulative Grade Point Average (CGPA) calculated as for the subjects:

$$CGPA = \frac{G1C1 + G2C2 + G3C3 + \dots + GnCn}{C1 + C2 + C3 + \dots + Cn}$$

Where G = Grade Weightage

C = Corresponding Subject Credit

(c) The classification on degree would be as follows:

Sl. No.	Classification	CGPA
1	First Class with distinction	8 and above
2	First Class	6.5 and above
3	Second Class	6 and above
4	Fail	Below 6

**12. Details of course and credit points are as follows:**

**Semester III**

Subject code	Paper	Credit
23.01	Physics of Diving and Diving Physiology	4
23.02	Explosive Ordnance Disposal and Mine Clearance	4
23.03	Mixture Theory	2
23.04	Non Destructive Testing	8
23.05	RCC and Construction of Diving system	2
23.06	Demolition	8
23.07	Marine Salvage	8
23.08	Clearance Diving General	6
Total		42

**Semester IV**

Subject code	Paper	Credit
24.01	Hull Maintenance	2
24.02	Deep and Saturation Diving	4
24.03	Diving Medicine	2
24.04	Submarine Familiarisation and Escape Training	6
24.05	Diving Equipments	6
24.06	Dissertation	8
24.07	Physical Training	6
24.08	Diving Practical	8
24.09	On Job Training at Operational Diving Teams/Units	8
Total		50

*Note:*

- (a) Marks for subjects from 23.01 to 23.08 would be from Diving School examination marks for the list of candidates.
- (b) Exams for subjects from 24.01 to 24.09 would be conducted at school. All Officers enrolled for lateral entry have to appear in all exams.
- (c) Subject 24.06 would be for preparation and presentation of dissertation and would be evaluated out of 300 marks.

**13. Failure in Examination**

The candidate failing to get the necessary grade in exams shall be deemed to have failed in the examination.

SCHEME OF INSTRUCTION AND EXAMINATION M.Sc. IN DIVING TECHNOLOGY (LATERAL)  
PROGRAMME No. 8102

Subject Code	Subject	C/E	Total Hours	Credits	Scheme of Teaching			Scheme of Examination Marks		
					T (HR)	P(HR)	T/P	TH	P	Total
					(HR)	(HR)	(HR)	(Marks)	(Marks)	(Marks)
Semester III										
23.01	Physics of Diving and Diving Physiology	E	64	4	56	8	3	100	..	100
23.02	Explosive Ordnance Disposal and Mine Clearance	E	64	4	56	8	3	100	..	100
23.03	Mixture Theory	E	32	2	24	8	4	50	50	100
23.04	Non-Destructive Testing	C	128	8	96	32	5	100	50	150
23.05	RCC and Construction of Diving System	E	32	2	22	10	4	50	50	100
23.06	Demolition	C	128	8	96	32	5	100	50	150
23.07	Marine Salvage	C	128	8	100	28	5	100	50	150
23.08	Clearance Diving General	C	96	6	66	30	5	100	50	150
Total			672	42	514	158	..	700	300	1000

*Note:—* T — Theory (Hours)  
P — Practical (Hours)  
T/P — Theory/Practical Examination (Hours)  
TH — Theory Marks  
C — Core Subject  
E — Elective Subject

Subject Code	Subject	C/E	Total Hours	Credits	Scheme of Teaching			Scheme of Examination Marks		
					T (HR)	P(HR)	T/P	TH	P	Total
							(HR)	(Marks)	(Marks)	(Marks)
Semester IV										
24.01	Hull Maintenance	E	32	2	22	10	3	100	..	100
24.02	Deep and Saturation Diving	C	64	4	56	8	3	100	..	100
24.03	Diving Medicine	E	32	2	28	4	3	100	..	100
24.04	Submarine Familiarization and Escape Training	C	96	6	66	30	4	100	..	100
24.05	Diving Equipments	C	96	6	72	24	5	150	..	150
24.06	Dissertation	C	64	8	48	16	3	100	..	300
24.07	Physical Training	C	96	6	6	90	2	..	100	100
24.08	Diving Practical	C	128	8	8	120	5	..	150	150
24.09	On Job Training at Operational Diving Teams/Units	C	128	8	28	100	3	..	100	100
Total			736	50	332	404		650	350	1200

*Note:—*

Total Credits—92  
Out of 92 Credits 16 for Elective Subjects and 76 for Core Subjects



(5)

No. Conf. II/2941/1/2009.

*16th January 2010.*

*Read:—*Notification No. conf.II/2941/1/09 dated 18-6-2009.

In exercise of the powers conferred by section 24(ii) read with Section 42(1) of CUSAT Act 1986, the Academic Council at its meeting held on 3-1-2009 resolved that the Regulation for M. Tech. Programme in VLSI and Embedded Systems be suitably modified facilitating the candidates with Degree in Biomedical Instrumentation as a sufficient qualifications for admission.

The Syndicate at its meeting held on 11-11-2009 vide No. 549.24 rectified the notification of even No. dated 18-6-2009 with regard to Clause 2.1 Eligibility Criteria for admission to M. Tech. VLSI and Embedded Systems as follows:

“Atleast a second class B.Sc. (Engineering) or Equivalent Degree in Electronics and Communication Engineering, Electronics and Instrumentation, Electrical and Electronics Engineering and Biomedical Instrumentation”.

The Revised eligibility criteria is made effective from 3-1-2009, the date of meeting of the Academic Council.

The Notification read above stands modified to this extent.

Cochin University P. O.,  
Kochi-22.

DR. N. CHANDRAMOHANAKUMAR,  
*Registrar.*